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Guan et al.(10) **Pub. No.: US 2014/0193958 A1**(43) **Pub. Date: Jul. 10, 2014**(54) **TERMINATION DESIGN FOR HIGH
VOLTAGE DEVICE**(52) **U.S. Cl.**CPC *H01L 29/66712* (2013.01); *H01L 29/407*
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ABSTRACT(73) Assignee: **Alpha and Omega Semiconductor
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30, 2012, now Pat. No. 8,680,613.**Publication Classification**(51) **Int. Cl.***H01L 29/66*

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The present disclosure describes a termination structure for a high voltage semiconductor transistor device. The termination structure is composed of at least two termination zones and an electrical disconnection between the body layer and the edge of the device. A first zone is configured to spread the electric field within the device. A second zone is configured to smoothly bring the electric field back up to the top surface of the device. The electrical disconnection prevents the device from short circuiting the edge of the device. It is emphasized that this abstract is provided to comply with the rules requiring an abstract that will allow a searcher or other reader to quickly ascertain the subject matter of the technical disclosure. It is submitted with the understanding that it will not be used to interpret or limit the scope or meaning of the claims.

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